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Serial No. 10/227,863 Art Unit 2616

JUN 0 9 2008

PATENT

Agent's Docket No. 13598-US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit: 2616
Examiner: LY, Anh Vu H.

STACKABLE VIRTUAL LOCAL AREA NETWORK PROVISIONING IN For:

BRIDGED NETWORKS

June 9, 2008

Commissioner for Patents U.S. Patent and Trademark Office Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION MAILED JANUARY 8, 2008 & RESPONSE TO ADVISORY ACTION MAILED APRIL 24, 2008

Sir:

In response to the Office Action mailed January 8, 2008 and the Advisory Action mailed April 24, 2008, please amend this application as follows:

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AMENDMENTS TO THE CLAIMS

- 1. (currently amended) A method of provisioning a backbone Virtual Local Area Network (VLAN) comprising:
 - a. obtaining at least one backbone VLAN Identifier (ID);
 - b. selecting a plurality of backbone VLAN trunks; and
- c. associating <u>each of</u> the backbone VLAN ID with each one of the plurality of backbone VLAN trunks; <u>bv</u>:
- c1. determining a plurality of stackable trunk ports corresponding to the plurality of backbone VLAN trunks; and
- c2. associating the backbone VLAN ID with each one of the plurality of stackable trunk ports;

wherein the selection and association of the <u>at least one</u> backbone VLAN ID with each one of the <u>corresponding</u> plurality of backbone VLAN trunks being is undertaken irrespective of one of an in-use and a stand-by designation of each one of the plurality of backbone VLAN trunks <u>and each one of the plurality of stackable trunk ports</u>.

- 2. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 1, the method further comprising tracking previously obtained backbone VLAN IDs.
- 3. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 1, the method further comprising generating the at least one backbone VLAN ID.
- 4. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 3, wherein generating the at least one backbone VLAN ID comprises generating a unique backbone VLAN ID.
- 5. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 1, wherein selecting the plurality of backbone VLAN trunks comprises selecting all managed backbone VLAN trunks.

- 6. (currently amended) A method of provisioning a backbone VLAN as claimed in claim 5, wherein selecting all managed backbone VLAN trunks, the method further comprises selecting all managed backbone VLAN trunks in an associated realm of management.
- 7. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 5 further comprising de-selecting at least one backbone VLAN trunk.
- 8. (cancelled)
- 9. (currently amended) A method of provisioning a backbone VLAN as claimed in claim [[8]] 1, wherein determining the plurality of stackable trunk ports comprises selecting all managed stackable trunk ports.
- 10. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 9, wherein selecting all stackable trunk ports-comprises selecting all managed stackable trunk ports in the associated realm of management.
- 11. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 9 further comprising de-selecting at least one selected stackable trunk port.
- 12. (currently amended) A method of provisioning a backbone VLAN as claimed in claim [[8]] 1, wherein associating the each backbone VLAN ID with each one of the corresponding plurality of stackable trunk ports comprises issuing commands to the plurality of stackable trunk ports to enable support for backbone VLAN ID associated communications.
- 13. (cancelled)
- 14. (cancelled)

- 15. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 1, further comprising issuing commands to determine a backbone VLAN provisioning status associated with at least one of a backbone VLAN, a backbone VLAN trunk, a stackable trunk port, a tunnel access port, and a VLAN access port.
- 16. (previously amended) A method of provisioning a backbone VLAN as claimed in claim 1, further comprising defining at least one switching rule by specifying one of:
 - i. a VLAN access port to VLAN access port binding;
 - ii. a VLAN access port to VLAN trunk port binding;
 - iii. a VLAN access port to stackable trunk port binding;
 - iv. a VLAN trunk port to VLAN trunk port binding; and
 - v. a tunnel access port to stackable trunk port binding.
- 17. (currently amended) A method of provisioning a backbone VLAN trunk comprising:
- a. obtaining a plurality of backbone VLAN IDs identifiers (<u>IDs</u>) associated with a corresponding plurality of provisioned backbone VLANs; and
- b. associating the plurality of backbone VLAN IDs with the backbone VLAN trunk; by
- b1. determining at least one stackable trunk port corresponding to the backbone VLAN trunk; and
- b2. associating the backbone VLAN IDs with the at least one stackable trunk

 port;

 wherein the association of the plurality of backbone VLAN IDs with the backbone VLAN

 trunk being is undertaken irrespective of one of an in-use and a stand-by designation of the
- 18. (previously amended) A method of provisioning a backbone VLAN trunk as claimed in claim 17, wherein obtaining the plurality of backbone VLAN IDs, comprises obtaining backbone VLAN IDs associated with all provisioned backbone VLANs.

backbone VLAN trunk and the at least one stackable trunk port.

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- 19. (previously amended) A method of provisioning a backbone VLAN trunk as claimed in claim 17, wherein obtaining backbone VLAN IDs associated with all provisioned backbone VLANs comprises obtaining backbone VLAN IDs associated with all provisioned backbone VLANs in a realm of management.
- 20. (previously amended) A method of provisioning a backbone VLAN trunk as claimed in claim 17, further comprising disregarding at least one backbone VLAN ID subsequent to obtaining the plurality of backbone VLAN IDs.

21. (cancelled)

- 22. (currently amended) A method of provisioning a backbone VLAN trunk as claimed in claim [[21]] 17, wherein associating the backbone VLAN IDs with the at least one stackable trunk port comprises issuing at least one command to the at least one stackable trunk port to enable support for backbone VLAN ID associated communications.
- 23. (previously amended) A method of provisioning a backbone VLAN trunk as claimed in claim 17, further comprising issuing commands to determine a backbone VLAN provisioning status associated with at least one of a backbone VLAN, a backbone VLAN trunk, and a stackable trunk port.
- 24. (currently amended) A method of provisioning a stackable trunk port comprising:
- a. obtaining a plurality of backbone VLAN IDs identifiers (IDs) associated with a corresponding plurality of provisioned backbone VLANs; and
- b. associating the plurality of backbone VLAN IDs with the stackable trunk port;

 wherein the association of the plurality of backbone VLAN IDs with the stackable trunk port being is undertaken irrespective of one of an in-use and a stand-by designation of the stackable trunk port.

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- 25. (previously amended) A method of provisioning a stackable trunk port as claimed in claim 24, wherein obtaining the plurality of backbone VLAN IDs further comprises obtaining backbone VLAN IDs associated with all provisioned backbone VLANs.
- 26. (previously amended) A method of provisioning a stackable trunk port as claimed in claim 24, wherein obtaining backbone VLAN IDs associated with all provisioned backbone VLANs further comprises obtaining backbone VLAN IDs associated with all provisioned backbone VLANs in a realm of management.
- 27. (previously amended) A method of provisioning a stackable trunk port as claimed in claim 24, further comprising disregarding at least one backbone VLAN ID subsequent to obtaining the plurality of backbone VLAN IDs.
- 28. (previously amended) A method of provisioning a stackable trunk port as claimed in claim 24, wherein associating the backbone VLAN IDs with the stackable trunk port comprises issuing at least one command to the stackable trunk port to enable support for backbone VLAN ID associated communications.
- 29. (previously amended) A method of provisioning a stackable trunk port as claimed in claim 24, further comprising issuing commands to determine a backbone VLAN provisioning status associated with at least one of a backbone VLAN, and a stackable trunk port.
- 30. (currently amended) A backbone VLAN provisioning human-machine computer interface comprising:
- a. a backbone VLAN ID identifier (ID) selector for selecting a plurality of backbone VLAN IDs;
- b. a backbone VLAN trunk selector for selecting a plurality of backbone
 VLAN trunks; and
- an activator for committing associations between the plurality of backbone
 VLAN IDs and the plurality of backbone VLAN trunks;

wherein the associations between the plurality of backbone VLAN IDs and the plurality of backbone VLAN trunks being is undertaken irrespective of one of an in-use and a stand-by designation of each one of the plurality of backbone VLAN trunks.

- 31. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 30, wherein the backbone VLAN ID selector is further operable to select the plurality of backbone VLAN IDs corresponding to all backbone VLANs provisioned in a managed communications network.
- 32. (currently amended) A backbone VLAN provisioning human machine computer interface as claimed in claim 30, wherein the backbone VLAN ID selector is further operable to de-select at least one backbone VLAN ID from the plurality of selected backbone VLAN IDs.
- 33. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 30, wherein the backbone VLAN trunk selector is further operable to select all backbone VLAN trunks provisioned in a managed communications network.
- 34. (currently amended) A backbone VLAN provisioning human machine computer interface as claimed in claim 30, wherein the backbone VLAN trunk selector is further operable to de-select at least one backbone VLAN trunk from the plurality of selected backbone VLAN trunks.
- 35. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 30, wherein the activator is further operable to initiate the issuing of at least one command to effect the associations between the plurality of backbone VLAN IDs and the plurality of backbone VLAN trunks.
- 36. (currently amended) A backbone VLAN provisioning human machine computer interface as claimed in claim 30, wherein the backbone VLAN trunk selector further comprises a stackable trunk port selector operable to select at least one stackable trunk port.

- 37. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 36, wherein the stackable trunk port selector operable to select all stackable trunk ports in a managed communications network.
- 38. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 37, wherein the stackable trunk port selector is further operable to de-select at least one stackable trunk port.
- 39. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 37, wherein the activator is further operable to initiate the issuing of at least one command to effect the associations between the plurality of backbone VLAN IDs and the plurality of stackable trunk ports.
- 40. (currently amended) A backbone VLAN provisioning human machine computer interface as claimed in claim 30, further comprising a tunnel access port selector for selecting at least two tunnel access ports.
- 41. (currently amended) A backbone VLAN provisioning human machine computer interface as claimed in claim 40, the activator further being operable to effect associations between the plurality of backbone VLAN IDs and the at least two tunnel access ports.
- 42. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 41, wherein the activator is further operable to issue at least one command to effect the associations between the plurality of backbone VLAN IDs and the at least two tunnel access ports.
- 43. (currently amended) A backbone VLAN provisioning human-machine computer interface as claimed in claim 30, further comprising means for displaying a backbone VLAN provisioning status for at least one of a backbone VLAN, a backbone VLAN trunk, a stackable trunk port, a VLAN access port and a tunnel access port.

- 44. (currently amended) A backbone VLAN provisioning human machine computer interface as claimed in claim 30, further comprising means for defining at least one switching rule by specifying a one of:
 - i. a VLAN access port to VLAN access port binding;
 - a VLAN access port to VLAN trunk port binding;
 - iii. a VLAN access port to stackable trunk port binding;
 - iv. a VLAN trunk port to VLAN trunk port binding; and
 - v. a tunnel access port to stackable trunk port binding.
- 45. (currently amended) A network management system using the human machine computer interface defined in claim 30 to effect backbone VLAN provisioning in a managed communications network.
- 46. (new) The method of claim 1 wherein each backbone VLAN ID is managed by a service provider and is independent of a standard VLAN ID.
- 47. (new) The method of claim 17 wherein each backbone VLAN ID is managed by a service provider and is independent of a standard VLAN ID.
- 48. (new) The method of claim 24 wherein each backbone VLAN ID is managed by a service provider and is independent of a standard VLAN ID.
- 49. (new) The backbone VLAN provisioning computer interface of claim 30 wherein each backbone VLAN ID is managed by a service provider and is independent of a standard VLAN ID.

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<u>REMARKS</u>

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Claim 1 has been amended to include the limitations of previous claim 8. Claim 8 has been cancelled, and claims 9 and 12 made dependent on claim 1.

Claim 17 has been amended to include the limitations of previous claim 21. Claim 21 has been cancelled, and claim 22 made dependent on claim 17. Claim 22 has also been amended to correct an antecedence issue.

Claims 1, 17, 24, and 30 have also been amended to properly introduce the abbreviation "ID".

Claims 30-45 have been amended to replace "human-machine interface" with "computer interface", since the Examiner has stated that all human-machine interfaces are computer interfaces.

New dependent claims 46-49 define the backbone VLAN IDs as being managed by a service provider and being independent of standard VLAN IDs. Support for this limitation is found for example at paragraphs 43 and 44.

No new subject matter has been added.

The Examiner has objected to claims 8 and 30-45 as containing various specified informality errors. Claim 8 has been cancelled. Claims 30-45 have been amended to replace the term "human-machine interface" with the term "computer interface", which the Examiner feels is more appropriate.

The Examiner has objected to claims 1-45 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,678,241 issued to Gai et al.

Arguments in response to Advisory Action dated April 24, 2008

Regarding "stackable trunk ports", the Examiner states that "a stackable trunk port is simply a port for connecting a switch to another switch. Then another switch connected to another switch. Herein, these switches are connected in serial fashion. Therefore, these trunk ports are stackable trunk ports or serial trunk ports as interpreted by the Examiner." The Applicant respectfully disagrees that with this interpretation of "stackable" trunk ports.

As recited in the description at paragraph 43, "the Riverstone stackable VLAN solution provides an extended VLAN identification". At paragraph 44 the description feads "In accordance with an exemplary embodiment of the invention, standard VLAN identifiers may be assigned by/to VLAN customers, while extended VLAN identifiers are managed by service providers."

Also at paragraph 44, the description reads "the Riverstone solution brings about a backbone VLAN paradigm wherein: the extended VLAN identifiers are known as backbone VLAN identifiers defining corresponding backbone VLANs, trunk ports supporting the Riverstone solution are known as stackable trunk ports".

These passages clearly illustrate what is meant by a backbone VLAN ID and stackable trunk ports, and the Examiner's interpretation of "stackable trunk port" is incorrect. Gai in no way teaches backbone VLANs or stackable trunk ports.

In view of this meaning of "backbone VLAN ID" and "stackable trunk port", the Examiner is kindly requested to fully reconsider the arguments previously presented that the claims are not anticipated by Gai. New claims 46-49 have also been added to explicitly define a backbone VLAN ID, although the Applicant maintains that a person skilled in the art reading the specification as a whole would understand that a backbone VLAN ID as used in claims 1, 17, 24, and 30 is not the same as the VLAN ID used by Gai.

Regarding the "selecting" step of claim 1, the Examiner states that "designating trunk ports with VLAN designations is the same as designating trunks with VLAN designations". This is not the limitation recited in claim 1.

Regarding claims 30-44, the Examiner states that "network topology management [of Gai] must be administered or performed by a computer. The computer herein must include means for entering administration information, as is known in the art." Although Gai presumably has an NMS, the Examiner has not addressed the specific elements of the present claims and has not shown where these elements are taught by Gai. Claim 30 does not simply claim an NMS for entering administration information, but rather is directed to a computer interface having individual well-specified elements such as selectors and activators. The Applicant respectfully submits that the Examiner cannot simply gloss over these features of claim 30 by saying that Gai must include a generic NMS. Unless the

Examiner points out where Gai teaches these specific elements, the Applicant cannot make a proper reply to the Office Action.

Regarding the term "irrespective", the Examiner has repeated previous arguments. As argued previously and extensively by the Applicant, Gai does not teach the selection and association of at least one backbone VLAN ID with each one of the corresponding plurality of backbone VLAN trunks irrespective of one of an in-use and a stand-by designation of each one of the plurality of backbone VLAN trunks. The Applicant respectfully submits that the Examiner is not considering the proper definition of the phrase "irrespective of". Definitions of "irrespective of" found in various dictionaries are "regardless of", "independent of", and "without regard to". In other words, the association of a backbone VLAN ID with a corresponding plurality of backbone VLAN trunks is carried out without any consideration of whether the backbone VLAN trunks are designated as in-use or standby. The backbone VLAN trunks may each already have a designation of in-use or standby, but the provisioning methods of the present claims ignore those designations when associating the backbone VLAN IDs with the backbone VLAN trunks. This is completely contrary to the backup method taught by Gai, which during association of VLANs with trunks explicitly designates one of the physical VLANs associated with a logical VLAN as in-use and explicitly designates one or more other physical VLANs associated with the logical VLAN as back-up.

In view of the normal meaning of the phrase "irrespective of", the Examiner is kindly requested to fully reconsider the arguments previously presented that the claims are not anticipated by Gai.

Arguments in response to Office Action dated January 8, 2008

Claim 1 includes the limitation of <u>selecting</u> a plurality of backbone VLAN trunks. This is a limitation not taught by Gai. In the reasons for rejection, the Examiner states that Gai teaches this limitation as the links 248 of Figure 2. In the Examiner's response to the Applicant's previous arguments, the Examiner states that the switches 230-246 of Gai associate their respective trunk ports with the VLAN designations, citing column 7 lines 10-15. Furthermore, as argued previously, the mere presence of the links 248 and the mere

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association of the trunk ports with VLAN designations does not teach <u>selecting</u> the links, especially in the context of a <u>provisioning method</u>. In order to teach this limitation of claim 1, the Examiner must show where Gai teaches <u>selecting</u> one of the links as part of a provisioning method.

Furthermore, the VLAN IDs RED, BLUE, etc. of Gai are not backbone VLAN IDs.

Claim 1 also includes the limitation of associating the backbone VLAN ID with each one of a plurality of stackable trunk ports. This is a limitation not taught by Gai. The Examiner states (with respect to previous claim 8) that Gai teaches associating the backbone VLAN ID with each one of a plurality of stackable trunk ports at column 14 lines 28-30 and FIG. 3 elements 302a-302c. However, these passages teach only association of a VLAN ID with a trunk port, and not association of a backbone VLAN ID with a stackable trunk port. The present invention, as claimed, is directed to a provisioning method which enables a number of possible actual VLANs beyond the usual 4096 limit. Backbone VLANs travel over backbone VLAN trunks, which are defined between stackable trunk ports on core routers. The qualification of the trunk ports in claim 1 as being stackable is important, as this allows VLANs to be stacked beyond the usual limit of 4096. The Applicant respectfully points out that the extension of the number of VLANs beyond 4096 is not intended to be explicitly claimed, but is merely an advantage of the invention realized by the explicit limitation of associating backbone VLAN IDs with stackable trunk ports. This difference between claim 1 and Gai is important, as the advantages of the present invention enabled by claim 1 are not possible using the teachings of Gai.

Claim 1 also includes the limitation that the selection and association of the backbone VLAN IDs with the backbone VLAN trunks is undertaken <u>irrespective</u> of an inuse and a stand-by designation of the backbone VLAN trunks. This is a limitation not taught by Gai. The Examiner states that "each physical VLAN is designated as ACTIVE, STAND-BY, and UNUSABLE. This implies that the trunks in the physical VLANs associated with each logical VLAN are undertaken irrespective of a one in-use and/or stand-by designation". As argued previously, this is actually contrary to the limitation of claim 1. Because each logical VLAN (which the Examiner has equated with a backbone VLAN by equating the ID RED with a backbone VLAN ID) of Gai <u>deliberately</u> has one active physical VLAN associated with it and a number of stand-by physical VLANs, <u>the association cannot be said to be irrespective of whether the trunk is in-use or stand-by</u>. In

fact, if Gai's association was irrespective of whether the trunks were in-use or stand-by, then the method taught by Gai would not work because the entire point of Gai is to have exactly one in-use physical VLAN and one or more stand-by physical VLANs to act as redundant VLANs should the active VLAN fail.

Claims 2-7, 9-12, 15, and 16 are dependent on claim 1 and include the same limitations discussed above. Because Gai does not teach each and every element of the claims, the Applicant respectfully submits that claims 1-7, 9-12, 15, and 16 are not anticipated by Gai.

Claim 17 includes the limitation of obtaining a plurality of backbone VLAN IDs associated with a corresponding plurality of provisioned backbone VLANs. This is a limitation not taught by Gai. In the reasons for rejection, the Examiner states that Gai teaches this limitation in Figure 5C as the values RED, BLUE, etc. However, as argued previously, the mere presence of the VLAN IDs does not teach obtaining the VLAN IDs, especially in the context of a provisioning method. In order to teach this limitation of claim 17, the Examiner must show where Gai teaches obtaining backbone VLAN IDs associated with a corresponding plurality of provisioned backbone VLANs.

Furthermore, the VLAN IDs RED, BLUE, etc. of Gai are note <u>backbone</u> VLAN IDs.

Claim 17 also includes the limitation of associating the backbone VLAN ID with each one of a plurality of stackable trunk ports. This is a limitation not taught by Gai. The Examiner states (with respect to previous claim 21) that Gai teaches associating the backbone VLAN ID with each one of a plurality of stackable trunk ports at column 14 lines 28-30 and FIG. 3 elements 302a-302c. However, these passages teach only association of a VLAN ID with a trunk port, and not association of a backbone VLAN ID with a stackable trunk port. The present invention, as claimed, is directed to a provisioning method which enables a number of possible actual VLANs beyond the usual 4096 limit. Backbone VLANs travel over backbone VLAN trunks, which are defined between stackable trunk ports on core routers. The qualification of the trunk ports in claim 17 as being stackable is important, as this allows VLANs to be stacked beyond the usual limit of 4096. The Applicant respectfully points out that the extension of the number of VLANs beyond 4096

is not intended to be explicitly claimed, but is merely an advantage of the invention realized by the explicit limitation of associating VLAN IDs with <u>stackable</u> trunk ports. This difference between claim 17 and Gai is important, as the advantages of the present invention enabled by claim 17 are not possible using the teachings of Gai.

Claim 17 also includes the limitation that the selection and association of the backbone VLAN IDs with the backbone VLAN trunk is undertaken irrespective of an inuse and a stand-by designation of the backbone VLAN trunks. This is a limitation not taught by Gai. The Examiner states that "each physical VLAN is designated as ACTIVE, STAND-BY, and UNUSABLE. This implies that the trunks in the physical VLANs associated with each logical VLAN are undertaken irrespective of a one in-use and/or stand-by designation". As argued previously, this is actually contrary to the limitation of claim 17. Because each logical VLAN (which the Examiner has equated with a backbone VLAN by equating the ID RED with a backbone VLAN ID) of Gai deliberately has one active physical VLAN associated with it and a number of stand-by physical VLANs, the association cannot be said to be irrespective of whether the trunk is in-use or stand-by, then the method taught by Gai would not work because the entire point of Gai is to have exactly one in-use physical VLAN and one or more stand-by physical VLANs to act as redundant VLANs should the active VLAN fail.

Claims 18-20, 22 and 23 are dependent on claim 17 and include the same limitations discussed above. Because Gai does not teach each and every element of the claims, the Applicant respectfully submits that claims 17-20, 22, and 23 are not anticipated by Gai.

Claim 24 is directed to a method of provisioning a stackable trunk port. The Examiner has not shown where Gai teaches a method of provisioning a stackable trunk port.

Claim 24 includes the limitation of obtaining a plurality of backbone VLAN IDs associated with a corresponding plurality of provisioned backbone VLANs. This is a limitation not taught by Gai. The Examiner states that Gai teaches this in Figure 5c as the IDs RED, BLUE, etc. However, as discussed above with reference to claim 17, the mere

presence of IDs is not sufficient to show a step of <u>obtaining</u> the IDs, certainly not in the context of a method of provisioning.

Claim 24 also includes the limitation of associating the plurality of backbone VLAN IDs with the stackable trunk port. This is a limitation not taught by Gai. The Examiner cites column 14 lines 28-30 and Figure 3 of Gai as teaching this limitation. However, these passages do not teach association of backbone VLAN IDs with stackable trunk ports. The present invention, as claimed, is directed to a provisioning method which enables a number of possible actual VLANs beyond the usual 4096 limit. Backbone VLANs travel over backbone VLAN trunks, which are defined between stackable trunk ports on core routers. The qualification of the trunk ports in claim 24 as being stackable is important, as this allows VLANs to be stacked beyond the usual limit of 4096. The Applicant respectfully points out that the extension of the number of VLANs beyond 4096 is not intended to be explicitly claimed, but is merely an advantage of the invention realized by the explicit limitation of associating backbone VLAN IDs with stackable trunk ports. This difference between claim 24 and Gai is important, as the advantages of the present invention enabled by claim 24 are not possible using the teachings of Gai.

Claim 24 also includes the limitation that the association of the plurality of backbone VLAN IDs with the stackable trunk port is undertaken <u>irrespective</u> of the in-use or stand-by designation of the stackable trunk port. However, as discussed above with reference to claims 1 and 17, Gai expressly takes into account whether a physical VLAN is active or stand-by in making the association, and is therefore the opposite of "irrespective".

Claims 25-29 are dependent on claim 24 and include the same limitations discussed above. Since Gai does not teach each and every element of the claims, the Applicant respectfully submits that claims 24-29 are not anticipated by Gai.

Claim 30 is directed to a backbone VLAN provisioning computer machine interface. The limitations of the claims include selectors and activators for effecting specified actions. The Examiner has not shown where Gai teaches such a computer interface. The Examiner has treated claim 30 the same as claim 1, but these are different categories of claims and comprise different limitations. For example, the Examiner addresses the preamble of claim 30 by stating that Gai discloses a method of provisioning a backbone VLAN in Figure 4.

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However, Figure 4 in no way discloses a computer interface as recited in claim 30. This ignores a major aspect of the invention, which is a NMS interface with specified functionality buttons which simplifies provisioning of backbone VLANs.

Claim 30 includes the limitation of a backbone VLAN ID selector for selecting a plurality of backbone VLAN IDs. As discussed above, Gai does not teach backbone VLAN IDs. In addition, the Examiner has not shown where Gai teaches such a selector within a human-machine interface.

Claim 30 also includes the limitation of a backbone VLAN trunk selector for selecting a plurality of backbone VLAN trunks. As discussed above, Gai does not teach backbone VLAN trunks. In addition, the Examiner has not shown where Gai teaches such a selector within a human-machine interface.

Claim 30 also includes the limitation of an activator for committing associations between the plurality of backbone VLAN IDs and the plurality of backbone VLAN trunks. As discussed above, Gai does not teach backbone VLAN IDs or backbone VLAN trunks. In addition, the Examiner has not shown where Gai teaches such an activator within a human-machine interface.

Claim 30 also includes the limitation that the associations between the plurality of backbone VLAN IDs and the plurality of backbone VLAN trunks is undertaken <u>irrespective</u> of the in-use or stand-by designation of the backbone VLAN trunks. However, as discussed above with reference to claims 1 and 17, Gai expressly takes into account whether a physical VLAN is active or stand-by in making the association, and is therefore the opposite of "irrespective".

Claims 31-44 are dependent on claim 30 and include the same limitations discussed above. Claim 45 is directed to an NMS which includes the limitations of claim 30. Since Gai does not teach each and every element of the claims, the Applicant respectfully submits that claims 30-45 are not anticipated by Gai.

The Examiner is kindly asked to consider the aspect of the invention reflected in claims 30-45, namely the NMS interface whose inventive elements simplify provisioning of backbone VLANs. The Applicant made such a request in response to the previous Office Action, but the Examiner has again failed to address the specific elements of claims 30-45, and has not addressed our previous arguments with respect to claims 30-45.

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In view of the foregoing, it is believed that the claims at present on file and as amended herein are in condition for allowance. Reconsideration and action to this end is respectfully requested.

Respectfully submitted,

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Agent of Record

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